Monitoring Study Group Meeting Minutes

February 2, 2005
CDF Shasta-Trinity Unit Headquarters, Redding

The following people attended the MSG meeting: Tharon O'Dell (BOF-chair), Mike Laing, (N.CA Fed. Fly Fishers), Richard Gienger (HWC/SSRC), John Munn (CDF), Dawn McGuire (DFG), Brad Dorken (CDF), Dr. Richard Harris (UCB), Tom Spittler (CGS), Bruce Beck (CDF), Leslie Markham (CDF), Anthony Lukacic (CDF), Dennis Hall (CDF), Rich Klug (Roseburg Resources), Dr. Lowell Diller (Green Diamond Resources), Matthew House (Green Diamond Resources), Kevin Faucher (CTM), Dave Wright (CTM), John Knight (CDF), Joe Croteau (DFG), Curt Babcock (DFG), Ben Rowe (CDF), Lois Kaufman (CDF), Scott Carnegie (WM Beaty), Dr. Sari Sommarstrom (Sari Sommarstrom and Associates), Dr. Roy Woodward (CDPR), Dr. Nicholas Dennis (Hearst Forests), Dr. Michael Wopat (CGS), and Pete Cafferata (CDF). **[Note: action items are shown in bold print]**.

We began the meeting with general monitoring related announcements:

- Pete Cafferata announced that Dr. Cajun James, SPI, has organized a turbidity and suspended sediment measurement workshop to be held on April 26, 2005 in Redding at the Holiday Inn. Dr. James Kirchner, UCB, will be the keynote speaker. Randy Klein, RNSP, is co-organizer of the workshop with Dr. James, and Ms. Sherry Cooper, UCCE, is providing logistics. An email announcement regarding the workshop is anticipated during the week of February 7, 2005.
- Pete Cafferata stated that the California Licensed Foresters Association (CLFA) is holding a workshop on March 3, 2005 in Sacramento at the Hilton titled " Down to Earth Ground-Based Solutions to Common THP Problems." Presenters include Drs. James, Benda, and Sullivan for watershed-related topics. More information is available at: http://clfa.org/RegistrationBrochure.pdf
- John Munn announced that the MOU Monitoring Workgroup, made up of state agency representatives, including the Regional Water Quality Control Boards, SWRCB, CGS, and CDF, has nearly completed work on developing mutually acceptable criteria for different types of water quality monitoring at the THP scale, but that the group has been unable able to reach agreement on the implementation section of the final report. The workgroup is meeting to discuss this topic on February 8, 2005.
- Dennis Hall stated that the MOU Cumulative Watershed Effects Workgroup has yet to complete its final report for the SWRCB and the BOF. Matthew Buffleben, NCRWQCB, presented products from the MOU CWE workgroup to the NCRWQCB at their November meeting.
- Richard Harris announced that he is waiting to hear if the watercourse crossing upgrade study he described at the November MSG meeting will receive funding from the University of California. Final word should be received by March 1, 2005.
- Tom Spittler stated that he is leading a new BOF Road Rules subcommittee and that the group has met once to date. The intent of this effort is to reorganize the road-related FPRs so that they are internally consistent. Some of the rules may be rewritten for clarity and to reflect current state-of-the-knowledge.

- Richard Harris shared two new books with the group related to monitoring:
  - "*Low-Volume Roads Engineering Best Management Practices Field Guide*" by Gordon Keller and James Sherar. It is available online at: http://ntl.bts.gov/lib/24000/24600/24650/Index_BMP_Field_Guide.htm, and hard copies are available by contacting Gordon Keller at gkellar@fs.fed.us
  - "*A Century of Forest and Wildland Watershed Lessons*" from the Society of American Foresters. Dr. George Ice edited this excellent book summarizing watershed research efforts in the United States. See the SAF website at: http://store.safnet.org/merchant.mv?Screen=CTGY&Store_Code=SS&Category_Code=FP
- Tom Spittler stated that the current state-of-the-knowledge regarding forest roads can be found in three books:
  - *Low-Volume Roads Engineering Best Management Practices Field Guide*
  - *The Handbook for Forest and Ranch Roads* (Weaver and Hagans 1994) (http://www.krisweb.com/biblio/gen_mcrcd_weaveretal_1994_handbook.pdf)
  - *Forest Road Contracting, Construction, and Maintenance for Small Forest Woodland Owners* (Kramer 2001) http://fcg.cof.orst.edu/rc/RC35.pdf
- Lowell Diller announced that FRAWG has workshop meetings scheduled for several locations in May titled "Ecology and Management of Headwater Streams, Springs, and Seeps." Discussions will occur on how to manage these resources and an announcement will be sent out in approximately one month.
- Richard Gienger stated that a conference titled "California Forest Futures 2005" will be held on May 23-24, 2005 at the Sacramento Convention Center. More information is available at: http://nature.berkeley.edu/forestry/forestfuture/, or contact Sherry Cooper at slcooper@nature.berkeley.edu.
- Michael Wopat announced that the Council on Forest Engineering is holding a workshop titled "Soil, Water and Timber Management: Forest Engineering Solutions in Response to Forest Regulation," on July 11-14, 2005 in Fortuna. For more information, see: http://cofe.org/page10.html. Dr. Wopat will make a presentation on designing watercourse crossings for 100-year flood flows, wood and sediment.
- Sari Sommarstrom announced that May 2005 is California's first "Watershed Awareness Month." For more information, see: http://watershednetwork.org/.

Following these announcements, Pete Cafferata provided the group with a PowerPoint presentation focusing on the evolving "Interagency Mitigation Monitoring Program (IMMP)." To set the stage for discussing the new program, the presentation began with a brief history lesson on past MSG/BOF/CDF monitoring efforts, starting with the Pilot Monitoring Program (1993-1995), which included hillslope, instream, and geologic components. There were very brief summaries of the Hillslope Monitoring Program (1996-2002), the Modified Completion Report (MCR) monitoring effort (2001-2004), and various cooperative instream monitoring projects (1997 to present). Following this background information, Mr. Cafferata described what is envisioned for future hillslope monitoring programs in 2005 and beyond. The goal is to: (1) retool and re-implement the MCR monitoring program with CDF inspectors, and (2) develop a new IMMP program with dedicated interagency teams. The new MCR program will continue to use a random sample of THPs throughout the state. The road sampling procedure will be made more repeatable and there will be more invited participation from the Review Team agencies. The old Audit Forester positions in

the CDF regional offices (now referred to as “Monitoring Coordinators”) have been filled and will be vital for the new monitoring work proposed. They will oversee the retooled MCR work, and coordinate and participate in the new IMMP program. For the new IMMP, the concept is to form dedicated interagency teams for each region, made up of the Review Team agencies, with possible RPF and public participation. The CDF inspector involved in the selected plan will also participate.

In framing this new draft IMMP, CDF considered several different options, as outlined by Dr. Andrea Tuttle in her 1995 final Pilot Monitoring Program Hillslope Component report (http://www.bof.fire.ca.gov/pdfs/tuttle.pdf). These included: private consultant, CDF Inspector, multi-interdisciplinary team of state agencies, self-monitoring with agency oversight, and self-monitoring without agency oversight. The first two have been utilized in the past, and self-monitoring will likely be a large component of Water Board waiver-related monitoring. The advantages of the “team” approach include having a balance of interests for all the Review Team agencies, more public confidence, and more repeatability. The disadvantages include the expense and difficulty of finding available staff time. The basic concept is to have a dedicated small team that can go to all the sites selected. There is some precedence for this type of approach in California and in the western U.S, including the “208” monitoring project in 1986, and Montana’s BMP audit program.

CDF has not developed the IMMP, but has recorded a few working draft concepts to date to help frame the program. Possible parameters to monitor include: watercourse crossing function, road erosion conditions, THP erosion control measures, and post-harvest canopy/riparian conditions. We want to include items that will be relevant to the other Review Team agencies, including possible parameters such as: Water Board waiver/WDR items (including Erosion Control Plan effectiveness), DFG 1600 permit compliance, listed aquatic species of concern mitigation measure implementation and effectiveness, CGS geologic recommendation effectiveness, and evaluation of mitigation measures designed to reduce the risk of mass soil movement associated with timber harvesting (a Fish and Game Commission coho recovery strategy recommendation).

As was stated at the last MSG meeting in November, CDF does not envision using subjective ratings for FPR implementation and effectiveness. We want to use quantitative approaches where possible. Approaches developed must be repeatable so that if selected members of the IMMP regional team are not present in the field, the results of the monitoring will be trusted by all and be verifiable. We do not foresee that the IMMP will use a random sample of THPs (and likely NTMPs). Rather high risk THPs will be identified and monitored. Examples of possible screening criteria for high risk were provided. The sampling scheme has yet to be developed, but will involve assistance from statisticians familiar with forestry applications. Attempts to use previously identified *highly erodible watersheds* (http://www.bof.fire.ca.gov/pdfs/ErosionPotentWatershed2.pdf) have been difficult in the past, but may be one element of a strategy for identifying plans for monitoring. The working concept is to evaluate approximately 30 plans per year, with about 14 from the Coast Region, 11 from the Northern Region, and 5 from the Southern Region. Further, we anticipate that the IMMP will be conducted during the Erosion Control Maintenance Period, and possibly up to the approval of stocking. Episodic and chronic erosion will be evaluated if a large stressing storm event has occurred during this period,

and chronic erosion will be evaluated if such as storm has not occurred. Clearly, the concepts presented for the IMMP require much further development from the other Review Team agencies. CDF senior staff will investigate how to best acquire database and statistical help for the new program.

Following this presentation, considerable discussion took place regarding the IMMP. Tom Spittler stressed that further budget reductions will make it extremely difficult for the Review Team agencies to participate in this program. John Munn stated that past criticisms of the HMP and MCR efforts have included the lack of Review Team agency participation and CDF is addressing this concern with this new approach. Nick Dennis suggested that a performance-based monitoring approach, such as is used in Montana, may be appropriate for this effort, and that the enforcement vs. monitoring issue must be addressed. Richard Gienger stated that a simple, credible monitoring approach is needed for project proponents to implement following the completion of timber operations (i.e., self monitoring). Mike Laing asked about public participation in the process and Tharon O'Dell responded that it may be possible on some of the larger ownerships in California, but liability and insurance issues must be considered. Dennis Hall stated that university staff may also be possible participants in the dedicated small team assembled for the IMMP. Sari Sommarstrom stressed that the parameters that are monitored in different regions will vary depending on geology, soils, slopes, etc. John King suggested that post-fire Exemptions would be exceptionally high risk areas that would merit study. Anthony Lukacic asked if CDF would move forward with the IMMP without participation from the other Review Team agencies. Dennis Hall responded that CDF would do so, but that it is critical to have the involvement of the other agencies in this program.

Tharon O'Dell reiterated his desire to establish a small MSG subcommittee to further develop the IMMP. Volunteers (or volunteered) to work on the IMMP Subcommittee include: Pete Cafferata (lead staff), Clay Brandow, John Munn, Tom Spittler, Richard Harris, Joe Croteau, Richard Gienger, Sam Flanagan, and Anthony Lukacic. Pete Cafferata will contact the Regional Water Boards, the other CDF Regional Monitoring Coordinators, and the timber industry for additional representatives. We will attempt to hold the first subcommittee meeting prior to April 7th, the next full MSG meeting date.

Next, Kevin Faucher provided the MSG with a short PowerPoint presentation on the South Fork Wages cooperative instream monitoring project. Instrumentation for stage, continuous turbidity, and pumped water samples has been installed at 4 sites in the South Fork Wages Creek watershed for a second winter of data collection. So far this winter, only one moderate-sized storm event has occurred in Wages Creek and good data collection took place. Higher turbidity values were recorded for this December 2005 storm than for a large storm in February 2004. Campbell Timberland Management is close to reaching final agreement with a private landowner for access to a site in lower Wages Creek where an additional monitoring station can be constructed. Mr. Faucher and CTM staff are now in charge of station maintenance and data collection, but Graham Matthews and Associates will continue to analyze the data and write reports.

Following lunch, Pete Cafferata provided brief updates on the other cooperative instream monitoring projects. For the Judd Creek project with SPI, Dr. Cajun James informed Pete

that Dr. James Kirchner, UCB, has reviewed the project study plan and will assist in data analysis for the project. Additionally, he offered suggestions on quantifying sediment sources. Following Dr. James presentation on the Judd Creek study plan at the November 2004 MSG meeting (see the draft Judd Creek cooperative instream project study plan at: http://www.bof.fire.ca.gov/pdfs/Judd%20Creek%20Final_Prospectus_MSG_maps.pdf), she met with DFG and CVRWQCB staff and reached consensus on required study plan modifications. Both East and West side (of Turner Meadow) timelines now are similar: year 1—no action, baseline data collection; year 2—no action, baseline data collection; year 3—road treatments; year 4—no action, data collection; year 5—chip and harvest units; years 6 through 8—collect post-harvest data. Equipment for stage, continuous turbidity, and pumped water samples has been installed at all 5 stations since November 2004 and turbidity data was shown to the group. **The Engebretson THP is now approved by CDF and SPI anticipates being ready to sign the MOU on the project with CDF in the very near future.**

Regarding the Garcia River watershed cooperative instream project, Teri Jo Barber, working for the MCRCD, informed Pete that Mill, Pardaloe, SF Garcia, and Whitlow Creeks had equipment for continuous turbidity and stage reinstalled in October 2004. The new Inman Creek station was functional in November 2004 and The Conservation Fund has granted access. A new ISCO pumping sampler and pressure transducer for stage measurement (both supplied by CDF) have been installed at the Mill Creek and Inman Creek stations, respectively. Ms. Barber is approximately half way through correction of problematic data collected last winter.

Clay Brandow, CDF, was unavailable to provide a presentation on the Modified Completion Report (MCR) monitoring program results, but will make this presentation at the next MSG meeting on April 7th. Pete Cafferata very briefly summarized a handout on MCR results that Clay had written for the November 2004 MSG meeting.

Dr. Sari Sommarstrom provided the MSG with a PowerPoint presentation on the French Creek monitoring project (http://www.bof.fire.ca.gov/pdfs/FrenchCreekWAG_04SariS.pdf). French Creek is a tributary of the Scott River, itself a tributary of the Klamath River. The watershed covers approximately 20,500 acres and 63% of the basin is underlain by decomposed granite (DG). Abundant fine sand filled pools and spawning gravels were identified as significant problems in the late 1980's. French Creek is a mixed ownership watershed, with the USFS owning 54% of the basin, the timber industry 34%, large ranches 9%, and residential owners 3%. In 1990, the BOF selected the French Creek watershed as a case study for a cooperative watershed process to address high sediment levels in a mixed ownership watershed. The French Creek Watershed Advisory Group (WAG) was formed and met bi-monthly until 1992 and annually thereafter. Primary members include: USFS, Fruit Growers Supply Co., Siskiyou County Road Dept., SPI (now Timber Products), Roseburg Resources, the French Creek Drainage Property Owners Association, DFG, CDF, NCRWQCB, Siskiyou RCD, SCS (now NRCS), SWRCB and the Marble Mountain Audubon Society. Dr. Sommarstrom stressed that it was critical that a trust-building process for working together was developed (e.g., non-working social lunches), allowing consensus decisions to be made.

A previously completed sediment study revealed that road cutslopes, fillslopes, and road surfaces produced the majority (62%) of the sediment in the basin. To address this sediment source, a Road Management Plan was adopted in 1992. Seventy-four miles of roads on DG soils were recommended to be rocked and outsloped to reduce surface erosion. Actual accomplishments to date include: 38 miles rocked and outsloped, 4 miles put-to-bed, 4 miles of private driveways rocked, timber roads gated, 20,000 trees planted on road cuts, and cut/fill slope erosion control. A monitoring plan was also adopted, with a joint annual monitoring effort performed by members. Ambitious goals were set with very little external funding. Fish monitoring took place at 6 sites in different reaches and tributaries. No coho were observed until 1993, with increasingly higher numbers observed in 3 year intervals (1993, 1996, 1999, 2002). Drought years likely caused lost runs. Steelhead numbers have generally increased from 1992 to 2003. V-star monitoring, indexing the amount of fine sediment in pools, showed a dramatic reduction, starting at over 30% in 1992 and dropping to roughly 10% in subsequent years. McNeil sediment sampling, measuring the amount of sediment in spawning gravels, took place at 2 reaches in 1989 and 2000. Results are not as definitive for McNeil samples as for the V-star work. MWAT temperature data were discussed as well; fencing and riparian planting efforts are expected to lower water temperatures in the near future.

A key lesson learned from this project was the benefit of using “joint fact-finding” in a monitoring program. This approach develops mutual trust, improves understanding of data among all stakeholders, and makes data collection more enjoyable. Other lessons included: the need to meet at least annually to share data, the need to summarize data and write citable reports, the value of having field trips together, the need for consistent field sites, and the benefits of being flexible as conditions and methods change over time. The quality of the work conducted by the French Creek Watershed Advisory Committee is shown by the group being awarded the 1996 National Watershed Award for voluntary efforts. Additionally, the NCRWQCB has cited the WAG efforts as an example of success in sediment reduction. All participants have expressed abundant pride in the successes that have occurred in the basin over time. Sari stated that the lessons learned in French Creek can be extrapolated to other watersheds throughout the state.

During the new and unfinished business/public comment period, Pete Cafferata explained that he handed out an abstract produced by HSU graduate student Samantha Hadden for an American Fisheries Society meeting held in 2004 on her graduate work examining sediment loads and fish feeding. **Ms. Hadden will be invited to present her work to the MSG at the next meeting.** He also briefly summarized the goals for a small, new CDF committee examining riparian protection measures in flood prone areas (Riparian Protection Committee).

The next MSG meeting was scheduled for April 7, 2005 at 10:00 a.m. in Willits. We will meet at the Mendocino County Museum, 400 East Commercial Street, in one of the classrooms used by Mendocino College. The agenda for the meeting will be emailed to the MSG mailing list shortly.